

1/54

SEQUENCE LISTING

<110> Commonwealth Scientific and Industrial Research Organisation

<120> Genes involved in plant fibre development

<130> 503310

<150> AU 2004901749

<151> 2004-03-31

<150> US 60/558,480

<151> 2004-03-31

<160> 74

<170> PatentIn version 3.1

<210> 1

<211> 624

<212> PRT

<213> Gossypium hirsutum

<400> 1

Val Lys Phe Trp Phe Gln Asn Lys Arg Thr Gln Met Lys Ala Gln His
1 5 10 15

Glu Arg His Glu Asn Ala Ile Leu Lys Ala Glu Asn Glu Lys Leu Arg
20 25 30

Ala Glu Asn Asn Arg Tyr Lys Glu Ala Leu Ser Asn Ala Thr Cys Pro
35 40 45

Ser Cys Gly Gly Pro Ala Ala Leu Gly Glu Met Ser Phe Asp Glu Gln
50 55 60

His Leu Arg Ile Glu Asn Ala Arg Leu Arg Glu Glu Ile Asp Arg Ile
65 70 75 80

Ser Gly Ile Ala Ala Lys Tyr Val Gly Lys Pro Leu Ser Ser Leu Pro
85 90 95

His Leu Ser Ser His Leu His Ser Arg Ser Ala Asp Leu Gly Ala Ser
100 105 110

Asn Phe Gly Asn Gln Ser Gly Phe Val Gly Glu Met Asp Arg Ser Gly
115 120 125

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Asp Leu Leu Arg Ser Val Ser Gly Pro Thr Glu Ala Asp Lys Pro Met
 130 135 140

Ile Val Glu Leu Ala Val Ala Ala Met Glu Glu Leu Ile Arg Met Ala
 145 150 155 160

Gln Ser Gly Glu Pro Leu Trp Val Pro Gly Asp Asn Ser Thr Asp Val
 165 170 175

Leu Asn Glu Asp Glu Tyr Leu Arg Thr Phe Pro Arg Gly Ile Gly Pro
 180 185 190

Lys Pro Leu Gly Leu Arg Ser Glu Ala Ser Arg Glu Ser Ala Val Val
 195 200 205

Ile Met Asn His Val Asn Leu Val Glu Ile Leu Met Asp Val Asn Gln
 210 215 220

Trp Ser Ser Val Phe Cys Gly Ile Val Ser Arg Ala Met Thr Leu Glu
 225 230 235 240

Val Leu Ser Thr Gly Val Ala Gly Asn Tyr Asn Gly Ala Leu Gln Val
 245 250 255

Met Thr Ala Glu Phe Gln Val Pro Ser Pro Leu Val Pro Thr Arg Glu
 260 265 270

Asn Tyr Phe Ala Arg Tyr Cys Lys Gln His Ile Asp Gly Thr Trp Ala
 275 280 285

Val Val Asp Val Ser Leu Asp Asn Leu Arg Pro Asn Pro Met Ser Ser
 290 295 300

Val Glu Arg Pro Ser Gly Cys Leu Ile Gln Asn Cys Gln Met Asp Thr
 305 310 315 320

Ser Lys Val Ile Trp Val Glu His Val Glu Val Asp Asp Arg Ala Val
 325 330 335

His Asn Ile Tyr Arg Pro Val Val Asn Ser Gly Leu Ala Phe Gly Ala
 340 345 350

Lys Arg Trp Val Ala Thr Leu Asp Arg Gln Cys Glu Arg Leu Ala Ser

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355	360	365
Ser Met Ala Ser Asn Ile Pro Ala Gly Gly Leu Cys Val Ile Thr Ser 370 375 380		
Pro Glu Gly Arg Lys Ser Met Leu Lys Leu Ala Glu Arg Met Val Thr 385 390 395 400		
Ser Phe Cys Thr Gly Val Gly Ala Ser Thr Ala His Ala Trp Thr Thr 405 410 415		
Leu Ser Ala Thr Gly Ser Asp Asp Val Arg Val Met Thr Arg Lys Ser 420 425 430		
Met Asp Asp Pro Gly Arg Pro Pro Gly Ile Val Leu Ser Ala Ala Thr 435 440 445		
Ser Phe Trp Ile Gln Val Pro Pro Lys Arg Val Phe Asp Phe Leu Arg 450 455 460		
Asp Glu Asn Ser Arg Ser Glu Trp Asp Ile Leu Ser Asn Gly Gly Leu 465 470 475 480		
Val Gln Glu Met Ala His Ile Ala Asn Gly Arg Asp Pro Gly Asn Cys 485 490 495		
Val Ser Leu Leu Arg Val Asn Ser Ala Asn Ser Ser Gln Ser Asn Met 500 505 510		
Leu Ile Leu Gln Glu Ser Cys Thr Asp Ala Lys Gly Ser Tyr Val Ile 515 520 525		
Tyr Ala Pro Val Asn Ile Val Ala Met Asn Ile Val Leu Ser Gly Gly 530 535 540		
Asp Pro Asp Tyr Val Ala Leu Leu Pro Ser Gly Phe Ala Ile Leu Pro 545 550 555 560		
Asp Gly Pro Gly Val Asn Gly Gly Gly Ile Leu Glu Ile Gly Ser Gly 565 570 575		
Gly Ser Leu Leu Thr Val Ala Phe Gln Ile Leu Val Asp Ser Val Pro 580 585 590		

<210>	2
<211>	309
<212>	PRT
<213>	Gossypium hirsutum

Met Gly Arg Ser Pro Cys Cys Glu Lys Val Gly Leu Lys Lys Gly Pro
1 5 10 15

Gly His Gly Ser Trp Arg Ala Leu Pro Ser Lys Ala Gly Leu Gln Arg
35 40 45

Ile Lys Arg Gly Lys Phe Ser Leu Gln Glu Glu Gln Thr Ile Ile Gln
65 70 75 80

Pro Lys Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Leu
100 105 110

Lys Thr Asp Ala Leu Gly Ser Thr Thr Gly Asn Pro Lys Asp Ala Ala
130 135 140

Asn Leu Ser His Met Ala Gln Trp Glu Ser Ala Arg Leu Glu Ala Glu
145 150 155 160

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Ala Arg Leu Val Arg Glu Ser Lys Leu Val Pro Ser Asn Pro Pro Gln
 165 170 175

Ser Asn His Phe Thr Ala Val Ala Pro Ser Pro Thr Pro Ala Thr Arg
 180 185 190

Pro Gln Cys Leu Asp Val Leu Lys Ala Trp Gln Gly Val Val Cys Gly
 195 200 205

Leu Phe Thr Phe Asn Met Asp Asn Asn Asn Leu Gln Ser Pro Thr Ser
 210 215 220

Thr Leu Asn Phe Met Glu Asn Thr Thr Thr Leu Pro Met Ser Ser Ser
 225 230 235 240

Ser Ser Val Asn Gly Met Phe Asn Glu Asn Phe Gly Trp Asn Ser Ser
 245 250 255

Ile Asn Pro Cys Glu Ser Gly Asp Asn Leu Lys Val Glu Tyr Gly Ser
 260 265 270

Asp Gln Ile Pro Glu Leu Lys Glu Arg Leu Asp His Pro Met Glu Leu
 275 280 285

His Glu Met Asp Tyr Ser Ser Glu Gly Thr Trp Phe Gln Glu Leu Phe
 290 295 300

Gly Phe Asn Gly Leu
 305

<210> 3
 <211> 150
 <212> PRT
 <213> Gossypium hirsutum

<400> 3

Arg Cys Glu Arg Leu Leu Leu Cys Val Ile Ser Asp Ala Arg Ser Ile
 1 5 10 15

His Tyr Leu Pro Ser Val Leu Ala Thr Ala Thr Met Met His Val Ile
 20 25 30

Asp Gln Val Glu Leu Phe Asn Pro Ile Asp Tyr Gln Asn Gln Leu Leu

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35 40 45
 Ser Val Leu Lys Ile Ser Lys Glu Lys Val Asn Asp Cys Tyr Lys Leu
 50 55 60
 Ile Leu Asp Val Ser Thr Arg Pro Gln Ala Gln Gly Asn Gly Gly Ala
 65 70 75 80
 Cys Lys Arg Lys Val Glu Glu Arg Val Pro Ser Ser Pro Ser Gly Val
 85 90 95
 Ile Asp Ala Ala Phe Gly Ser Asp Ser Ser Ser Asp Ser Trp Gly Thr
 100 105 110
 Val Ser Leu Ser Pro Glu Gln Gln Pro Pro Phe Lys Lys Ser Arg Ala
 115 120 125
 Gln Glu Gln Val Met Arg Leu Pro Ser Leu Asn Arg Val Phe Val Asp
 130 135 140
 Ile Val Gly Ser Pro Ser
 145 150

 <210> 4
 <211> 229
 <212> PRT
 <213> Gossypium hirsutum

 <400> 4
 Met Ala Asn His Thr Val Thr Phe Leu Pro Lys Leu Ser Ile Glu Ala
 1 5 10 15
 Ile Gln Thr Val Thr Pro Met Arg Ile Thr Glu Pro Arg Gln Thr Arg
 20 25 30
 Gln Val Leu Ala Gly Glu Leu Val Gly Pro Gly Ile Phe Gln Arg Cys
 35 40 45
 Leu Asn Val Val Gln Tyr Tyr Met Lys Glu Lys Glu Glu Asp Ser Gly
 50 55 60
 Trp Leu Leu Ala Gly Trp Ile Lys Glu Thr Leu Gly Arg Ala Leu His
 65 70 75 80

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Glu Gln Pro Met Ile Ser Gly Arg Leu Arg Lys Gly Glu Arg Asn Asp
 85 90 95

Gly Glu Leu Glu Ile Val Ser Asn Asp Cys Gly Ile Arg Leu Ile Glu
 100 105 110

Ala Arg Ile Gln Met Asn Leu Ser Asp Phe Leu Asp Leu Lys Gln Arg
 115 120 125

Glu Asp Ala Glu Ala Gln Leu Val Phe Trp Lys Asp Ile Asp Glu Gln
 130 135 140

Asn Pro Gln Phe Ser Pro Leu Phe Tyr Val Gln Val Thr Asn Phe Gln
 145 150 155 160

Cys Gly Gly Tyr Ser Ile Gly Ile Ser Cys Ser Ile Leu Leu Ala Asp
 165 170 175

Leu Leu Leu Met Lys Glu Phe Leu Lys Thr Trp Ala Asp Ile Pro Thr
 180 185 190

Arg Leu Leu Ser Thr Lys Thr Met Asn Lys Ser Phe Leu Tyr Ser Thr
 195 200 205

Phe Leu Ala Glu Lys His Gln Trp Cys Leu Pro Thr Ser Ser His Gln
 210 215 220

Ile Gln Ala Lys Leu
 225

<210> 5
 <211> 107
 <212> PRT
 <213> Gossypium hirsutum

<400> 5

Met Ala Lys Tyr Leu Asn Val Val Leu Val Leu Ala Leu Val Val Val
 1 5 10 15

Gln Ala Thr Ala Arg Asn Val Pro Ser Asp Ala Ala Gly Leu Asn Asp
 20 25 30

Gln Lys Asn Leu Leu Thr Tyr Gly Gly Ile Gly Gly Tyr Ser Gly Met

8/54

35 40 45
 Gly Ser Asn Gly Met Pro Met Gly Gly Val Gly Ser Val Gly Gly Met
 50 55 60
 Thr Gly Leu Gly Gly Thr Gly Gly Met Gly Ala Met Val Gly Val Gly
 65 70 75 80
 Tyr Gly Gly Gly Pro Gly Ala Gly Gly Gly Asn Glu Gly Gly Val Gly
 85 90 95
 Ile Gly Asn Ala Pro Gly Val Val His Phe Pro
 100 105
 <210> 6
 <211> 112
 <212> PRT
 <213> Gossypium hirsutum
 <400> 6
 Ser Ser Asp Ser Arg Lys Pro Leu Ala Ser Phe Tyr Leu Glu Lys Thr
 1 5 10 15
 Lys Lys Leu Leu Leu Cys Trp Thr Cys Ser Cys Phe Phe Ser Leu Tyr
 20 25 30
 Gly Val Val Tyr Gly Leu Tyr Tyr Glu Phe Tyr Met Asn Arg Thr Leu
 35 40 45
 Asn Leu Val Arg Lys Leu Arg Met Ser Leu Gly Gly Ala Glu Val Leu
 50 55 60
 Met Ala Ile Ala Gly Leu Trp Ala Val Val Leu Arg Pro Leu Met Ile
 65 70 75 80
 Arg Tyr Ala Val Glu Met Ser Gln Met Ile Gly Ile Ser Val Arg Arg
 85 90 95
 Phe Phe Ser Asn Pro Leu Ser Pro Ser Val Ser Phe Phe Tyr Trp Tyr
 100 105 110

<210> 7
 <211> 258
 <212> PRT

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<213> Gossypium hirsutum

<400> 7

Met Ala Thr Lys Thr Met Met Leu Gln Ile Phe Pro Leu Phe Phe Phe
 1 5 10 15

Leu Phe Ser Val Cys Asn Ser Ile Phe Leu Gly Ala Asn Gly Asp Asp
 20 25 30

Asn Gly Gly Trp Gln Thr Ala His Ala Thr Phe Tyr Gly Gly Ala Asp
 35 40 45

Ala Thr Gly Thr Met Gly Gly Ala Cys Gly Tyr Gly Asn Leu Tyr Ser
 50 55 60

Gln Gly Tyr Gly Thr Ser Thr Ala Ala Leu Ser Thr Ala Leu Phe Asn
 65 70 75 80

Asn Gly Leu Ser Cys Gly Ala Cys Tyr Glu Leu Arg Cys Asn Asn Asp
 85 90 95

Pro Gln Trp Cys Ile Ser Arg Thr Ile Thr Val Thr Ala Thr Asn Phe
 100 105 110

Cys Pro Pro Asn Tyr Ala Leu Ser Ser Asp Asn Gly Gly Trp Cys Asn
 115 120 125

Pro Pro Arg Glu His Phe Asp Leu Ala Glu Pro Arg Phe Leu Arg Ile
 130 135 140

Ala Glu Tyr Arg Ala Gly Ile Val Pro Val Met Phe Arg Arg Val Ser
 145 150 155 160

Cys Val Lys Lys Gly Gly Ile Arg Tyr Thr Met Asn Gly His Ser Tyr
 165 170 175

Phe Asn Met Val Leu Ile Thr Lys Leu Gly Gly Ala Gly Asp Ile Thr
 180 185 190

Ser Val Ser Ile Lys Gly Ser Arg Thr Gly Trp Leu Pro Met Ser Arg
 195 200 205

Asn Trp Gly Gln Asn Trp Gln Ser Asn Ala Tyr Leu Asn Gly Gln Ser

10/54

210 215 220
 Leu Ser Phe Lys Val Thr Ala Ser Asp Gly Arg Thr Ile Thr Ala Tyr
 225 230 235 240
 Asn Val Val Pro Ala Gly Trp Gln Phe Gly Gln Thr Phe Glu Gly Gly
 245 250 255
 Gln Phe

 <210> 8
 <211> 190
 <212> PRT
 <213> Gossypium hirsutum

 <400> 8
 Val Pro Phe Tyr Ser Ser Asn Tyr Leu Leu His Glu Ser Cys Met Met
 1 5 10 15
 Met Ile Ala Ser Leu Val Pro Asn Phe Met Met Gly Val Ile Ile Gly
 20 25 30
 Ala Gly Tyr Ile Gly Leu Leu Met Met Thr Ala Gly Tyr Phe Arg Leu
 35 40 45
 Leu Pro Asp Leu Pro Lys Ile Phe Trp Arg Tyr Pro Val Ser Tyr Ile
 50 55 60
 Asn Tyr Gly Ala Trp Ala Leu Gln Gly Ala Tyr Lys Asn Asp Met Val
 65 70 75 80
 Gly Leu Glu Phe Asp Gly Phe Ile Pro Gly Gly Pro Lys Leu Lys Gly
 85 90 95
 Asp Val Val Leu Thr Ser Met Leu Gly Ile His Leu Asp His Ser Lys
 100 105 110
 Trp Trp Asp Leu Ala Ala Val Ile Met Ile Leu Ile Ala Tyr Arg Leu
 115 120 125
 Leu Phe Phe Ile Ile Leu Lys Phe Lys Glu Arg Val Ser Pro Leu Phe
 130 135 140

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Arg Thr Leu Tyr Thr Trp Arg Thr Leu Gln His Met Lys Lys Arg Pro
 145 150 155 160

Ser Phe Arg Lys Thr Ser Ala Phe Pro Ser Lys Arg His Gln Val Leu
 165 170 175

His Ser Leu Ser Ser Gln Glu Gly Leu Asn Ser Pro Ile His
 180 185 190

<210> 9
 <211> 805
 <212> PRT
 <213> Gossypium hirsutum

<400> 9

Met Ala Asn Pro Val Ile Thr Arg Val His Ser Leu Arg Glu Arg Leu
 1 5 10 15

Asp Glu Thr Leu Leu Ala His Arg Asn Glu Ile Leu Ala Leu Leu Ser
 20 25 30

Arg Ile Glu Gly Lys Gly Lys Gly Ile Leu Gln His His Gln Ile Ile
 35 40 45

Leu Glu Phe Glu Ala Ile Pro Glu Glu Asn Arg Lys Lys Leu Ala Asp
 50 55 60

Gly Ala Phe Phe Glu Val Leu Lys Ala Ser Gln Glu Ala Ile Val Leu
 65 70 75 80

Pro Pro Trp Val Ala Leu Ala Val Arg Pro Arg Pro Gly Val Trp Glu
 85 90 95

Tyr Ile Arg Val Asn Val His Ala Leu Val Val Glu Glu Leu Thr Val
 100 105 110

Ala Glu Tyr Leu His Phe Lys Glu Glu Leu Val Asp Gly Ser Ser Asn
 115 120 125

Gly Asn Phe Val Leu Glu Leu Asp Phe Glu Pro Phe Asn Ser Ser Phe
 130 135 140

Pro Arg Pro Thr Leu Ser Lys Ser Val Gly Asn Gly Val Glu Phe Leu

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145		150		155		160
Asn Arg His Leu Ser	Ala Lys Leu Phe His	Asp Lys Glu Ser Met His				
	165	170			175	
Pro Leu Leu Glu Phe Leu Arg Val His Cys His Lys Gly Lys Asn Met						
	180	185			190	
Met Leu Asn Asp Arg Ile Gln Asn Leu Asn Ala Leu Gln His Val Leu						
	195	200			205	
Arg Lys Ala Glu Glu Tyr Leu Gly Thr Leu Pro Pro Glu Thr Pro Cys						
	210	215			220	
Ala Gly Phe Glu His Arg Phe Gln Glu Ile Gly Leu Glu Arg Gly Trp						
	225	230			235	240
Gly Asp Thr Ala Gln Arg Val Leu Glu Met Ile Gln Leu Leu Leu Asp						
	245	250				255
Leu Leu Glu Ala Pro Asp Pro Cys Thr Leu Glu Lys Phe Leu Gly Arg						
	260	265				270
Ile Pro Met Val Phe Asn Val Val Ile Leu Thr Pro His Gly Tyr Phe						
	275	280				285
Ala Gln Asp Asn Val Leu Gly Tyr Pro Asp Thr Gly Gly Gln Val Val						
	290	295			300	
Tyr Ile Leu Asp Gln Val Arg Ala Leu Glu Asn Glu Met Leu Leu Arg						
	305	310			315	320
Ile Lys Gln Gln Gly Leu Asn Ile Thr Pro Arg Ile Leu Ile Ile Thr						
	325	330				335
Arg Leu Leu Pro Asp Ala Val Gly Thr Thr Cys Gly Gln Arg Leu Glu						
	340	345				350
Lys Val Tyr Gly Thr Glu Tyr Ser Asp Ile Leu Arg Val Pro Phe Arg						
	355	360				365
Thr Glu Lys Gly Ile Val Arg Lys Trp Ile Ser Arg Phe Glu Val Trp						
	370	375			380	

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Pro Tyr Leu Glu Thr Tyr Thr Glu Asp Val Ala His Glu Ile Ser Lys
 385 390 395 400

Glu Leu Gln Gly Lys Pro Asp Leu Ile Ile Gly Asn Tyr Ser Asp Gly
 405 410 415

Asn Ile Val Ala Ser Leu Leu Ala His Lys Leu Gly Val Thr Gln Cys
 420 425 430

Thr Ile Ala His Ala Leu Glu Lys Thr Lys Tyr Pro Asp Ser Asp Ile
 435 440 445

Tyr Trp Lys Lys Leu Glu Asp Lys Tyr His Phe Ser Cys Gln Phe Thr
 450 455 460

Ala Asp Leu Phe Ala Met Asn His Thr Asp Phe Ile Ile Thr Ser Thr
 465 470 475 480

Phe Gln Glu Ile Ala Gly Ser Lys Asp Thr Val Gly Gln Tyr Glu Ser
 485 490 495

His Thr Ala Phe Thr Leu Pro Gly Leu Tyr Arg Val Val His Gly Ile
 500 505 510

Asp Val Phe Asp Pro Lys Phe Asn Ile Val Ser Pro Gly Ala Asp Met
 515 520 525

Glu Ile Tyr Phe Pro Tyr Thr Glu Glu Lys Arg Arg Leu Lys His Phe
 530 535 540

His Thr Glu Ile Glu Asp Leu Leu Tyr Ser Lys Val Glu Asn Glu Glu
 545 550 555 560

His Leu Cys Val Leu Asn Asp Arg Asn Lys Pro Ile Leu Phe Thr Met
 565 570 575

Ala Arg Leu Asp Arg Val Lys Asn Leu Thr Gly Leu Val Glu Trp Tyr
 580 585 590

Gly Lys Asn Ala Lys Leu Arg Glu Leu Ala Asn Leu Val Val Val Gly
 595 600 605

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Gly Asp Arg Arg Lys Glu Ser Lys Asp Leu Glu Glu Lys Ala Glu Met
610 615 620

Lys Lys Met Phe Glu Leu Ile Glu Lys Tyr Asn Leu Asn Gly Gln Phe
625 630 635 640

Arg Trp Ile Ser Ser Gln Met Asn Arg Ile Arg Asn Gly Glu Leu Tyr
645 650 655

Arg Tyr Ile Cys Asp Thr Lys Gly Ala Phe Val Gln Pro Ala Leu Tyr
660 665 670

Glu Ala Phe Gly Leu Thr Val Val Glu Ala Met Thr Cys Gly Leu Pro
675 680 685

Thr Phe Ala Thr Cys Asn Gly Gly Pro Ala Glu Ile Ile Val His Gly
690 695 700

Lys Ser Gly Phe Asn Ile Asp Pro Tyr His Gly Asp Gln Ala Ala Asp
705 710 715 720

Ile Leu Val Asp Phe Phe Glu Lys Cys Lys Lys Asp Pro Ser His Trp
725 730 735

Asp Lys Ile Ser Gln Gly Gly Leu Lys Arg Ile Glu Glu Lys Tyr Thr
740 745 750

Trp Lys Ile Tyr Ser Glu Arg Leu Leu Thr Leu Thr Gly Val Tyr Gly
755 760 765

Phe Trp Lys His Val Ser Asn Leu Glu Arg Arg Glu Ser Arg Arg Tyr
770 775 780

Leu Glu Met Phe Tyr Ala Leu Lys Tyr Arg Lys Leu Ala Glu Ser Val
785 790 795 800

Pro Leu Ala Glu Glu
805

<210> 10
<211> 195
<212> PRT
<213> Gossypium hirsutum

15/54

<400> 10

Met Glu Arg Gly Phe Ile Val Leu Ala Leu Thr Val Val Phe Ala Ala
 1 5 10 15

Thr Val Val Thr Ala Ala Asp Glu Ser Gly Leu Ala Asn Glu Cys Ser
 20 25 30

Lys Asp Phe Gln Ser Val Met Thr Cys Leu Ser Phe Ala Gln Gly Lys
 35 40 45

Ala Ala Ser Pro Ser Lys Glu Cys Cys Asn Ser Val Ala Gly Ile Lys
 50 55 60

Glu Asn Lys Pro Lys Cys Leu Cys Tyr Ile Leu Gln Gln Thr Gln Thr
 65 70 75 80

Ser Gly Ala Gln Asn Leu Lys Ser Leu Gly Val Gln Glu Asp Lys Leu
 85 90 95

Phe Gln Leu Pro Ser Ala Cys Gln Leu Lys Asn Ala Ser Val Ser Asp
 100 105 110

Cys Pro Lys Leu Leu Gly Leu Ser Pro Ser Ser Pro Asp Ala Ala Ile
 115 120 125

Phe Thr Asn Ser Ser Ser Lys Ala Thr Thr Pro Ser Thr Ser Thr Thr
 130 135 140

Thr Ala Thr Pro Ser Ser Ala Ala Asp Lys Thr Asp Ser Lys Ser Ser
 145 150 155 160

Gly Ile Lys Leu Gly Pro His Phe Val Gly Ser Thr Ala Ala Leu Leu
 165 170 175

Val Ala Thr Ala Ala Val Phe Phe Leu Val Phe Pro Ala Gly Phe Ala
 180 185 190

Ser Ile Val
 195

<210> 11

<211> 123

16/54

<212> PRT

<213> Gossypium hirsutum

<400> 11

Met Ala Ser Ser Gly Val Leu Lys Leu Val Ser Met Ile Leu Met Val
 1 5 10 15

Cys Met Thr Met Met Ser Ala Pro Lys Ala Ala Lys Ala Ala Ile Thr
 20 25 30

Cys Ser Asp Val Val Asn His Leu Ile Pro Cys Leu Ser Tyr Val Gln
 35 40 45

Asn Gly Gly Thr Pro Ala Ala Ala Cys Cys Ser Gly Val Lys Ala Leu
 50 55 60

Tyr Gly Glu Val Gln Thr Ser Pro Asp Arg Gln Asn Val Cys Lys Cys
 65 70 75 80

Ile Lys Ser Ala Val Asn Gly Ile Pro Tyr Thr Ser Asn Asn Leu Asn
 85 90 95

Leu Ala Ala Gly Leu Pro Ala Lys Cys Gly Leu Gln Leu Pro Tyr Ser
 100 105 110

Ile Ser Pro Ser Thr Asp Cys Asn Lys Val Gln
 115 120

<210> 12

<211> 282

<212> PRT

<213> Gossypium hirsutum

<400> 12

Pro Arg Val Arg Pro Arg Val Arg Ala His Leu Pro Lys Arg Thr Asp
 1 5 10 15

Asn Glu Ile Lys Asn Tyr Trp Asn Thr Gln Leu Lys Lys Arg Leu Thr
 20 25 30

Thr Ile Gly Ile Asp Pro Ala Thr His Arg Pro Lys Thr Asp Thr Leu
 35 40 45

Gly Ser Thr Pro Lys Asp Ala Ala Asn Leu Ser His Met Ala Gln Trp

60

Asn Ala Ser Pro Ser Gly Ser Ser Val Phe
275 280

18/54

<210> 13
 <211> 177
 <212> PRT
 <213> *Gossypium hirsutum*

<400> 13

Met Lys Val Leu Ser Pro Ile Leu Ala Cys Leu Ala Leu Ala Val Val
 1 5 10 15

Ala Ser His Ala Ala Leu Ser Pro Glu Gln Tyr Trp Ser Tyr Lys Leu
 20 25 30

Pro Asn Thr Pro Met Pro Lys Ala Val Lys Glu Ile Leu His Pro Glu
 35 40 45

Leu Met Glu Glu Lys Ser Thr Ser Val Asn Val Gly Gly Gly Gly Val
 50 55 60

Asn Val Asn Thr Gly Lys Gly Lys Pro Ala Gly Gly Thr His Val Asn
 65 70 75 80

Val Gly Arg Lys Gly Val Gly Val Asn Thr Gly Lys Pro Gly Gly Gly
 85 90 95

Thr His Val Asn Val Gly Gly Lys Gly Val Gly Val Asn Thr Gly Lys
 100 105 110

Pro Gly Gly Gly Thr His Val Asn Val Gly Gly Lys Gly Gly Gly Val
 115 120 125

Ser Val His Thr Gly His Lys Gly Lys Pro Val Asn Val Asn Val Ser
 130 135 140

Pro Phe Leu Tyr Gln Tyr Ala Ala Ser Glu Thr Gln Ile His Asp Asp
 145 150 155 160

Pro Asn Val Ala Leu Phe Phe Leu Glu Lys Asp Leu His Pro Gly Gln
 165 170 175

Gln

19/54

<210> 14
 <211> 282
 <212> PRT
 <213> *Gossypium hirsutum*

<400> 14

Leu Ser Glu Ser Lys Glu Met Val Phe Gln Phe Asn Phe Pro Val Leu
 1 5 10 15

Leu Leu Cys Leu Met Phe Leu Met Cys Gly Arg Gly Asn Ala Val Arg
 20 25 30

Asp Leu Glu Gly Lys His Asp Phe Glu Ser His Gly Arg Asp Asp Glu
 35 40 45

Val Glu Ser Leu Asp Asp Lys Tyr Val Ser Ala Tyr Phe His Gln Thr
 50 55 60

Phe Asp Ser Ala Asn His Phe Asp Gly Gly Asp Glu Val Lys Asn Leu
 65 70 75 80

Glu Asp Lys Tyr Ser Thr Ala Tyr Phe His Lys Ser Leu Asp Ser Gly
 85 90 95

Asn His Gly Arg Asp Asp Lys Ala Lys Ile Leu Glu Asp Lys Tyr Ala
 100 105 110

Thr Ala Tyr Phe His Lys Thr Ser Val Phe Glu Asn His Gly Glu Gly
 115 120 125

Asp Lys Leu Lys Ser Leu Glu Asp Lys Tyr Ser Ala Ala Tyr Phe His
 130 135 140

Asn Thr Gln Ser Ser Lys Met Met Lys Asp His Asn Met Glu His His
 145 150 155 160

His His Tyr His Asn His Val Glu Ser Ala Glu Ile Gly Leu Phe Thr
 165 170 175

Ile Asp Glu Leu His Thr Phe Asn Val Gly Lys Lys Leu Pro Ile Phe
 180 185 190

Phe Pro Ile Lys Asn His Ser Leu Tyr Pro Pro Leu Leu Pro Lys Gln
 195 200 205

20/54

Ile Ala Asp Thr Ile Pro Phe Ser Ser Phe Gln Val Ser Asn Ile Leu
 210 215 220

Arg Phe Phe Ser Val Ser Pro Asp Ser Pro Lys Gly Lys Ser Cys Ser
 225 230 235 240

Arg Tyr Leu Arg Lys Met Arg Thr Arg Ser Ser Ala Arg Gly Arg Pro
 245 250 255

Lys Ile Trp Ala Thr Ser Leu Lys Ser Leu His Gly Phe Leu Ser Met
 260 265 270

His Leu Gly Pro Met Leu Ile Ser Ser Ser
 275 280

<210> 15
 <211> 55
 <212> PRT
 <213> Gossypium hirsutum

<400> 15

Lys Trp Glu Ala Gly Gln Ser Gln Cys Met Val Val Leu Val Phe Thr
 1 5 10 15

Gln Ile Ser Leu Val Lys Gly Lys Arg Lys Leu Cys Tyr Ser Ser Ile
 20 25 30

Val Ala Leu Ile Leu Glu Ser Val Leu Phe Val Leu Thr Phe Pro Ala
 35 40 45

Leu Thr Asp Met Asn Leu Tyr
 50 55

<210> 16
 <211> 235
 <212> PRT
 <213> Gossypium hirsutum

<400> 16

Met Pro Arg Thr Arg Arg Phe Asn Pro Pro Ser Ile Thr Ser Arg Thr
 1 5 10 15

Leu Gly His His Val Tyr Lys Asp Asp Asn Pro Ile Val Tyr Gly Thr

21/54

20

25

30

Met Gln Ala Tyr Leu Lys Asp Ala Arg Glu Arg Leu Phe Asn Thr Ala
 35 40 45

Arg Thr Ala Glu Lys Leu Gly Ile His Met Gly Phe Lys Leu Val Arg
 50 55 60

Gly Ala Tyr Met Ser Ser Glu Thr Lys Leu Ala Ser Ser Leu Gly Phe
 65 70 75 80

Asp Ser Pro Val His Asn Thr Ile Gln Asp Thr His Ala Cys Phe Asn
 85 90 95

Asp Cys Ala Ser Phe Met Ile Glu Lys Ile Ala Asp Gly Tyr Gly Gly
 100 105 110

Leu Val Leu Ala Thr His Asn Leu Glu Ser Gly Lys Leu Ala Ala Ser
 115 120 125

Lys Ala Arg Asn Leu Gly Ile Glu Lys Gly Asn Gln Lys Leu Glu Phe
 130 135 140

Ala Gln Leu Tyr Gly Met Ser Glu Ala Leu Ser Ile Gly Leu Arg Asn
 145 150 155 160

Ala Gly Phe Gln Val Ser Lys Tyr Leu Pro Tyr Gly Pro Val Asp Met
 165 170 175

Val Met Pro Tyr Leu Leu Arg Arg Ala Glu Glu Asn Arg Gly Leu Leu
 180 185 190

Ser Thr Ser Ser Leu Asp Arg Thr Leu Met Gly Lys Glu Leu Lys Arg
 195 200 205

Arg Leu Lys Ser Leu Gln Phe Ala Lys Pro Glu Met Ala Ala Ser Ala
 210 215 220

Ala Gly Ser Met Lys Ile Glu Ile Gly Thr Pro
 225 230 235

<210> 17
 <211> 2207

22/54

<212> DNA

<213> *Gossypium hirsutum*

<400> 17

gtcaagttct ggttcacaaa caagcgcacc caaatgaagg cccaacatga acgccatgaa	60
aatgctatac tgaaggctga gaatgaaaaa ctccgagctg agaataatag gtacaaggaa	120
gctctcagca atgctacatg cccagctgt ggaggcccag ctgcccttgg agagatgtca	180
tttgatgagc aacatttgag aatagaaaat gctcggtaa gggaagagat tgataggata	240
tctggaatag ctgctaaata tgttggaag cctttatctt cattgcctca cctttcatct	300
catttacatt cgcgctctgc tgatcttga gctagcaatt tcgggaatca atcaggatctt	360
gtaggggaaa tggatcgcag tggatgatt ctgaggtctg tctctggacc tacagaagcg	420
gataagccca tgattgttga gcttgctgtt gctgcaatgg aggaactaat acgaatggcc	480
caatctgggg aacctttgtg ggttcctggg gacaattcta cagatgtgtt gaacgaagat	540
gaatacttaa gaactttccc taggggaatt ggaccaaagc ctttgggggtt gaggtctgaa	600
gcttcaagag aatctgcagt tgtcatcatg aatcatgtca acttagttga gattctcatg	660
gatgtgaatc aatgggtcaag tgtgttttgc ggtattgttt caagggctat gaacttagaa	720
gtcctatcaa ctggagttgc aggaaactac aatggggcct tgcaagtgat gacggctgag	780
ttccaagtcc cttcaccact tgtaccaact cgggaaaatt atttcgcgag gtactgtaag	840
cagcatattg atggaacttg ggcagtgggt gatgtttcct tggataatct acgccctaac	900
ccaatgtcaa gtgtagagag gccctcaggt tgcttgatcc agaattgcca aatggatacc	960
tctaaggtta tatgggtcga gcatgtagaa gtggatgata gagctgtcca caacatatac	1020
agaccagtag ttaattccgg tctagctttt ggagcaaac gttgggtggc tacgttggat	1080
cgacagtgtg agcgtctagc aagttcaatg gccagtaaca ttccagcagg ggggtctatgc	1140
gttataacaa gcccagaagg gaggaaaagt atgttgaagt tggcagagag gatggtgact	1200
agcttttcta caggtgttgg tgcttctaag gccatgctt ggacaacttt atcggcaaca	1260
ggctccgatg atgtgcgggt tatgaccga aagagcatgg atgatccagg aaggcctcct	1320
ggtattgtac ttagtgctgc aacttccttc tggatccaag ttccaccaa gagggtatctt	1380
gatttcctaa gggatgagaa ctctagaagt gaggggata tcctatcaaa tgggtggccta	1440
gttcaagaaa tggctcacat agctaattgg cgtgatccag gcaatttgtt ctctttactc	1500
cgogtaaata gtgcaaaact tagccaaagc aacatgttga tacttcaaga gagctgcact	1560
gatgctaaag ggtcctacgt gatatatgcc ccggtaata ttgttgcaat gaacatcgtc	1620

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ttaagtggcg gggacccgga ttatgtcgca ctattgccat ccggtttcgc aattcttccc 1680
 gatggtccag gagttaatgg aggagggatc ctcgaaatcg gctcgggtgg ctctctcctt 1740
 accgttgctt tccagatttt gggttgattca gttccacag caaagctttc tcttggatca 1800
 gtggcgactg tcaacagtct aattaaatgc acggttgaaa ggatcaaggc tgccgtaaag 1860
 tgcaataatg cttgaccaa catgatataa aaaaaggaaa cgagaagaaa aggtgtttgt 1920
 ccgaaaacaa atttaacgat tgaagaagtc aagagcgcac ctttcaattc atcctttgcg 1980
 gtcatggtgt tctgtaagaa ggcaaaatca tcaagcctgc aaggatagta ggttcgggaa 2040
 ttgactttgc caacgagatt ctaatatag atatgttggg agaactcccc attttgtgta 2100
 ggctaagagt tcaatgtagg agtggacttt atactagtct aatttctttc tggtttcatg 2160
 tgttattgtt gaagcattag ttaatttgga cttattcctc cattaac 2207

<210> 18
 <211> 1872
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 18
 gtcaagttct ggttcaaaa caagcgcacc caaatgaagg cccaacatga acgccaatgaa 60
 aatgctatac tgaaggctga gaatgaaaaa ctccgagctg agaataatag gtacaaggaa 120
 gctctcagca atgctacatg cccagctgt ggaggccag ctgcccttgg agagatgtca 180
 tttgatgagc aacatttgag aatagaaaat gctcgggttaa gggaagagat tgataggata 240
 tctggaatag ctgctaaata tgttggcaag ctttatctt cattgcctca ctttcatct 300
 catttacatt cgcgctctgc tgatcttggg gctagcaatt tcgggaatca atcaggattt 360
 gtaggggaaa tggatcgag tggatgactt ctgaggtctg tctctggacc tacagaagcg 420
 gataagccca tgattgttga gcttgctgtt gctgcaatgg aggaactaat acgaatggcc 480
 caatctgggg aacctttgtg ggttcctggg gacaattcta cagatgtgtt gaacgaagat 540
 gaatacttaa gaactttccc taggggaatt ggaccaaagc ctttgggggtt gaggtctgaa 600
 gcttcaagag aatctgcagt tgtcatcatg aatcatgtca acttagttga gattctcatg 660
 gatgtgaatc aatggatcaag tgtgttttgc ggtattgttt caagggtat gacttttagaa 720
 gtccatcaaa ctggagttgc aggaaactac aatggggcct tgcaagtgat gacggctgag 780
 ttccaagtcc cttcaccact tgtaccaact cgggaaaatt atttcgag gtactgtaag 840
 cagcatattg atggaacttg ggcagtgggt gatgtttcct tggataattt acgccctaac 900

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ccaatgtcaa gtgtagagag gccctcaggt tgcttgatcc agaattgcca aatggatacc 960
totaaggtta tatgggtcga gcatgtagaa gtggatgata gagctgtcca caacatatac 1020
agaccagtag ttaattccgg tctagctttt ggagcaaaac gttgggtggc tacgttggat 1080
cgacagtgtg agcgtctagc aagttcaatg gccagtaaca ttccagcagg ggggtctatgc 1140
gttataacaa gcccagaagg gaggaaaagt atgttgaagt tggcagagag gatgggtgact 1200
agcttttgta caggtgttgg tgcttctacg gcccatgctt ggacaacttt atcggcaaca 1260
ggctccgatg atgtgcgggt tatgaccgga aagagcatgg atgatccagg aaggcctcct 1320
ggatttgtac ttagtgctgc aacttccttc tggatccaag ttccaccaa gaggggtat 1380
gatttcctaa gggatgagaa ctctagaagt gagtgggata tcctatcaaa tgggtggccta 1440
gttcaagaaa tggctcacat agctaattgg cgtgatccag gcaattgtgt ctctttactc 1500
cgcgtaaata gtgcaaactc tagccaaagc aacatgttga tacttcaaga gagctgcact 1560
gatgctaaag ggtcctacgt gatatatgcc ccggtcaata ttgttgcaat gaacatcgtc 1620
ttaagtggcg gggaccgga ttatgtcgca ctattgccat ccggtttcgc aattcttccc 1680
gatgggccag gagttaatgg aggagggatc ctcgaaatcg gctcgggtgg ctctctcctt 1740
accgttgctt tccagatttt gggtgattca gttcccacag caaagctttc tcttgatca 1800
gtggcgactg tcaacagtct aattaaatgc acggttgaaa ggatcaaggc tgccgtaaag 1860
tgcaataatg ct 1872

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<210> 19
<211> 1180
<212> DNA
<213> Gossypium hirsutum

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<400> 19
tagaaattgt tatacagttc tagctaaggt tcatttgaaa gatacataca tacacacaca 60
tatatatatg gggagatcac catgttgtga aaaggtaggg ttgaagaaag gtccatggac 120
cccagaagaa gatcaaaagc tcttagctta cattgaacaa catggccatg gaagctggcg 180
tgccctgcct tcaaaagctg ggcttcaaag atgtggaaag agttgcagac tgagatggat 240
taactacttg agacctgata tcaaaagagg aaagttcagt ttacaagaag aacagaccat 300
tattcaactc catgcccttc ttggaaacag gtggctctgcc atagctactc atttgccgaa 360
aagaacagac aatgagatca agaactactg gaacacacat ctaatgaaaa ggctaaccaa 420
aatggggatc gatcctgtca cccacaagcc taaaaccgat gcactcgggt ccaccactgg 480

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taaccctaaa gatgctgcta accttagtca catggctcaa tgggagagtg ctcgtttaga      540
agctgaagct agactggttc gtgagtccaa gctagttcct tcaaaccctc ctcaaagcaa      600
ccatttcact gccgttgccg cttcgccgac tccggcaact agaccgcaat gcctcgacgt      660
actcaaagca tggcaagggtg tcgtctgcgg gttatttact ttcaacatgg acaataacaa      720
cttacagtcc cctacgtcaa cgttgaactt catggagaac accacaacat tgcccatgtc      780
atcatcatcg tctgttaatg gaatgtttta tgaaaacttt gggttggaact catcgattaa      840
tccatgtgaa agtggggata atttgaaagt tgaatatggc agtgatcaaa ttccagagtt      900
aaaggaaaga ttggatcatc caatggaatt gcatgaaatg gactattcct cagagggtac      960
atgggtttcaa gagttgtttg gatttaatgg tttatgattc tgcagaagga ttcatcaaag    1020
gaaagaaagc tatctggttt catctttgaa gttcacttaa gtgtaggatt tttattcaca    1080
agtgccttca catattacca ttaactgtaa taataaacct tcaaattaat aaattaaaaa    1140
actcacaagg gtttttggcc aaaaaaaaaa aaaaaaaaaa                    1180

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<210> 20
<211> 927
<212> DNA
<213> Gossypium hirsutum

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<400> 20
atggggagat caccatgttg tgaaaaggta ggggtgaaga aagggtccatg gaccccagaa      60
gaagatcaaa agctcttagc ttacattgaa caacatggcc atggaagctg gcgtgccttg      120
ccttcaaaaag ctgggcttca aagatgtgga aagagttgca gactgagatg gattaactac      180
ttgagacctg atatcaaaag aggaaagttc agtttacaag aagaacagac cattattcaa      240
ctccatgcc ttcttggaag caggtggtct gccatagcta ctcatTTgcc gaaaagaaca      300
gacaatgaga tcaagaacta ctggaacaca catctaataa aaaggctaac caaatgggg      360
atcgatcctg taccacaaa gcctaaaacc gatgcactcg gctccaccac tggtaacctt      420
aaagatgctg ctaaccttag tcacatggct caatgggaga gtgctcgttt agaagctgaa      480
gctagactgg ttcgtgagtc caagctagtt cttcaaacc ctctcaaag caaccatttc      540
actgccgttg cgccttcgcc gactccggca actagaccgc aatgcctoga cgtactcaaa      600
gcatggcaag gtgtcgtctg cgggttattc actttcaaca tggacaataa caacttacag      660
tcccctacgt caacgttgaa cttcatggag aacaccacaa cattgcccac gtcacatca      720
tcgtctgtta atggaatgtt taatgaaaac tttggttgga actcatcgat taatccatgt      780

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gaaagtgggg ataatttgaa agttgaatat ggcagtgatc aaattccaga gttaaaggaa 840
 agattggatc atccaatgga attgcatgaa atggactatt cttcagaggg tacatggttt 900
 caagagttgt ttggatttaa tggttta 927

<210> 21
 <211> 600
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 21
 agcgatgtga gcgctctcctc ctctgtgtaa tctctgatgc aagatccatc cattatcttc 60
 cctctgtatt ggctactgca accatgatgc acgtcataga ccaagttgag cttttcaatc 120
 ccattgacta ccaaaatcag ctgctgagtg ttcttaaaat tagcaaggaa aaagtaaacg 180
 attgttaciaa gctcatcctt gatgtatcaa caagacccca ggccaaggc aatgggtggtg 240
 catgtaagag gaaggtggag gagaggggtc ctagcagccc tagtggagtg attgatgctg 300
 catttggcag tgatagctcg agcgattctt ggggcacggt gtccttatcg cctgagcagc 360
 agccaccttt taagaagagc agagcccaag agcaagtaat gcgtttgcc a tcaactcaacc 420
 gagtctttgt agacattggt ggcagccctt cttaattata tctcccttct ctctctccct 480
 cgctctctcc atctctttct ttgtcccaa aagatctata tttattatgc ttatgttcac 540
 ttttggttca aggaatcaaa tgtaagtta aaaaaatgaa aaaaacaaag taaaagctgc 600

<210> 22
 <211> 452
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 22
 agcgatgtga gcgctctcctc ctctgtgtaa tctctgatgc aagatccatc cattatcttc 60
 cctctgtatt ggctactgca accatgatgc acgtcataga ccaagttgag cttttcaatc 120
 ccattgacta ccaaaatcag ctgctgagtg ttcttaaaat tagcaaggaa aaagtaaacg 180
 attgttaciaa gctcatcctt gatgtatcaa caagacccca ggccaaggc aatgggtggtg 240
 catgtaagag gaaggtggag gagaggggtc ctagcagccc tagtggagtg attgatgctg 300
 catttggcag tgatagctcg agcgattctt ggggcacggt gtccttatcg cctgagcagc 360
 agccaccttt taagaagagc agagcccaag agcaagtaat gcgtttgcc a tcaactcaacc 420
 gagtctttgt agacattggt ggcagccctt ct 452

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<210> 23
 <211> 704
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 23
 gctgaacacc ccaaagatgg ccaaccacac cgttaccttt ctccctaaac tatccattga 60
 agctattcag acagtgactc cgatgaggat aactgaacca cgacagactc gacaagtatt 120
 ggcaggggag cttgtaggac cggggatfff ccaaaggtgt ttgaacgtgg tccagtacta 180
 catgaaggag aaagaagaag actctgggtg gttactggct ggggtggatca aggaaacact 240
 tgggagagct ttacatgagc aaccaatgat ttctggctgt cttcggaaag gggaacgaaa 300
 cgatggagaa ttgggagattg ttccaatga ctgcggcatt agactcattg aggcaaggat 360
 tcagatgaat ctgtcggatt ttcttgattt gaaacaaagg gaagatgctg aagctcagct 420
 tgttttctgg aaagatattg atgagcaaaa cccacagttc tccccactct tttatgttca 480
 ggttactaat ttccagtgtg gtggatattc aattgggatt agctgcagta ttcttctggc 540
 agatctttttg ttaatgaaag aattccttaa gacatgggca gatattccaa caagggttatt 600
 atcaacaaaa acgatgaaca aaagcttctt ttattctacc ttcttggtg aaaaacacca 660
 atggtgcctc cctacatcat cacatcaa at tcaagcaaaa ctca 704

<210> 24
 <211> 548
 <212> DNA
 <213> *Gossypium hirsutum*

<220>
 <221> misc_feature
 <222> (491)..(491)
 <223> n = unknown

<400> 24
 ctgagttaag agtttcaatt cttctactta ttatagttaa atatcatata tggccaagta 60
 cttgaatggt gtgcttggtc ttgctctagt agtgggttcaa gctactgcaa ggaatgtgcc 120
 tagcgatgct gctgggtctca atgacaaaaa gaacctcctc acatacgggtg gcattggcgg 180
 ctactctggc atgggttcaa atggcatgcc aatgggtgga gttgggagtg ttggtggtat 240
 gactggcctt ggtggtacag gtgggatggg cgccatggta ggtgttgggt atggaggtgg 300
 gcctggcgct ggtggtggaa atgaaggtgg tgttggcatt ggcaatgcgc ctggtgtcgt 360
 ccactttcct tgaactttgc tggatggtta aaattttaaa gcaactagtt tcttgaactt 420

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tgctggaggg gtttaaattt taaagcaact agtctaactt acgttaaaga ataatattaa 480
 tgttgctcta nagtgtgaaa tgttgtcctg tgtatgggtt atgtgataag tccatcttta 540
 tttttttt 548

<210> 25
 <211> 321
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 25
 atggccaagt acttgaatgt tgtgcttggt cttgctctag tagtggttca agctactgca 60
 aggaatgtgc ctagcgatgc tgctggtctc aatgaccaaa agaacctcct cacatacggg 120
 ggcatggcg gctactctgg catgggttca aatggcatgc caatgggtgg agttgggagt 180
 gttggtggta tgactggcct tgggtggtaca ggtgggatgg gcgccatggg aggtgttggg 240
 tatggaggtg ggcctggcgc tgggtggtgga aatgaaggtg gtgttggcat tggcaatgcg 300
 cctggtgtcg tccactttcc t 321

<210> 26
 <211> 727
 <212> DNA
 <213> *Gossypium hirsutum*

<220>
 <221> misc_feature
 <222> (26)..(26)
 <223> n = unknown

<400> 26
 ccaaaatgta agtcttcaaa accaanagaa gaaactgtaa agcagtagta atgcaaatgc 60
 ttagacactc aaatataagt agcaaactaa cctatgggtt atttggctga ttttgaaggg 120
 ttcatgggtg attttggtgc gtgtctgtta agaatccgag ttgttgtccc gtggtattag 180
 cttctctgtc ttgctgggtg cgattgggca gttgtgacgt ctataatcaa gtgattcaag 240
 gaaaccgtta gcttcatttt acttgagaa gacaaagaag ctattgttgt gctggacttg 300
 ttcttgcttt ttctctttgt atgggtgtgg ttatgggttg tattatgagt tttatatgaa 360
 tagaactttg aatttggtga gaaaattaag aatgagcttg ggaggagcag aagtgttgat 420
 ggcaatagca gggttgtggg cagtggtttt gaggccattg atgataaggt atgccgtaga 480
 gatgagtcaa atgattggaa tttccgttag gagatttttc agtaatcctc tttccccttc 540

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cgtatcgttt ttttattggt actgatatag aaattctatg aaatgagcac aatatgagac 600
 accatttttt gctagccaag aagtttagatg agtagtagac tttggtttaa gcttatcata 660
 attgaaattg ttagactgta acccttttgt ctcctttctc taatttcaaa tccaaattcc 720
 catcaat 727

<210> 27
 <211> 562
 <212> DNA
 <213> *Gossypium hirsutum*

<220>
 <221> misc_feature
 <222> (26)..(26)
 <223> n = unknown

<400> 27
 ccaaaatgta agtcttcaaa accaanagaa gaaactgtaa agcagtagta atgcaaattgc 60
 ttagacactc aaatataagt agcaaaactaa cctatggggtt atttggctga ttttgaaggg 120
 ttcatgggtg attttgggtgc gtgtctgtta agaatccgag ttgttgtccc gtggtattag 180
 cttctctgtc ttgctgggtg cgattgggca gttgtgacgt ctataatcaa gtgattcaag 240
 gaaaccgtta gcttcatttt acttggagaa gacaaagaag ctattgttgt gctggacttg 300
 ttcttgcttt ttctctttgt atgggtgtgg tttatggtttg tattatgagt tttatatgaa 360
 tagaactttg aatttggtga gaaaattaag aatgagcttg ggaggagcag aagtgttgat 420
 ggcaatagca ggggtgtggg cagtgggtttt gaggccattg atgataaggt atgccgtaga 480
 gatgagtcaa atgattggaa tttccgttag gagatttttc agtaatcctc tttccccttc 540
 cgtatcgttt ttttattggt ac 562

<210> 28
 <211> 835
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 28
 tacggtggtg ctgatgctac cggcacaatg gggggagctt gtggttatgg aaacctgtac 60
 agtcaagggg atggaacgag cacagcagct ttgagcactg cacttttcaa caatggcttg 120
 agctgcggtg cctgctacga gctccggtgc aacaatgato ctcaatgggtg cattagtcca 180
 accataaccg tgacagccac caacttttgt ccacctaaact atgctttatc tagtgacaat 240
 ggcggtggtt gcaatcccc acgagaacac tttgatttgg ccgaaccggc attcttgctg 300

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atagcagaat atcgagctgg aatcgtcctt gttatgttca gaaggggtgtc atgtgtgaag 360
 aaaggaggca tcaggtacac catgaatgga cattcgact tcaacatggt gttgataacg 420
 aacgtgggag gggcagggga tataacgtca gtgtccatca agggttccag aacaggatgg 480
 ctacctatgt ccagaaattg gggccaaaac tggcagagca atgcttacct taacggacaa 540
 agcctctctt ttaaagtgac tgccagcgat ggcaggacta tcacagccta caatgtagtg 600
 cctgctgggt ggcaattcgg aaaaactttt gaaggaggcc agttttaaga caatattata 660
 gtgtctgtct aatataaaac tggaattgac atattactta tataaggcac atgagcggtt 720
 tatgccgagg tagcaaaatg gcgcccgtg gctttatgtg tgaaataggc gagcaagtgc 780
 cattagccta taatctatac atttcttata gtgaacaaaa ctattaagtt tgaac 835

<210> 29
 <211> 765
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 29
 tacggtggtg ctgatgctac cggcacaatg gggggagctt gtggttatgg aaacctgtac 60
 agtcaagggt atggaacgag cacagcagct ttgagcactg cacttttcaa caatggcttg 120
 agctgcggtg cctgctacga gctccggtgc aacaatgatc ctcaatggtg cattagtcga 180
 accataaccg tgacagccac caacttttgt ccacctaaact atgctttatc tagtgacaat 240
 ggcgggtggt gcaatcccc acgagaacac tttgatttgg ccgaaccggc attcttgcg 300
 atagcagaat atcgagctgg aatcgtcctt gttatgttca gaaggggtgtc atgtgtgaag 360
 aaaggaggca tcaggtacac catgaatgga cattcgact tcaacatggt gttgataacg 420
 aacgtgggag gggcagggga tataacgtca gtgtccatca agggttccag aacaggatgg 480
 ctacctatgt ccagaaattg gggccaaaac tggcagagca atgcttacct taacggacaa 540
 agcctctctt ttaaagtgac tgccagcgat ggcaggacta tcacagccta caatgtagtg 600
 cctgctgggt ggcaattcgg aaaaactttt gaaggaggcc agttttaaga caatattata 660
 gtgtctgtct aatataaaac tggaattgac atattactta tataaggcac atgagcggtt 720
 tatgccgagg tagcaaaatg gcgcccgtg gctttatgtg tgaaa 765

<210> 30
 <211> 985
 <212> DNA
 <213> *Gossypium hirsutum*

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<400> 30
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 actagttccc aacttcatga tgggagtcac aattggagct gggtatatag gtttgctaata 120
 gatgacagct gggatatttca gattgctgcc agatctccct aagatattct ggcgttaccc 180
 tgtttcatat atcaactatg gtgcatgggc attgcaggga gcatacaaga atgatatggc 240
 tgggcttgag tttgatggct tcatacctgg tgggtcaaaa ctgaaagggtg atgtcgtcct 300
 cacatccatg ctaggcatcc atctggatca ttcaaagtgg tgggacttag cagctgttat 360
 aatgattttg atagcttata gattactttt cttcatcatt ctcaagttca aggagagagt 420
 gtcaccattg tttcgaactc tttatacatg gcgaacattg cagcacatga aaaaacgacc 480
 ttcttttagg aaaacatcag ccttcccatc caagaggcac caagttctac attcactgtc 540
 ttctcaagag ggtctaaact ctccaattca ctagaagcaa caaatcatga gtactatagt 600
 aatgctctta ctggaatttg attacagaaa caaagggaag gagattatag tagaattaca 660
 tatggaatta cctgtatcag ctttattttt caagtgttc taatatctgc ggactgttct 720
 ggcattaatg gcaagagagt ttcccatcac ccaagaatgg tttgtttatg gtcctcccta 780
 gcaatggcga tgaagagcag aaacctgatt tctgttggtg caaccagtgc tttgaagtaa 840
 ccagatatga taaacaggta cagaaaatat cccattgttc ttcgtagata atttcatctg 900
 ccaaattgtt gtagctgatg cctcctacat tatacaatgt cataacatct aatgatacca 960
 ttatatattgt acgtaaaaaa aaaaa 985

<210> 31
 <211> 571
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 31
 tgtccctttc tacagcagca attacctatt acatgagagc tgcgatgatga tgatagcatc 60
 actagttccc aacttcatga tgggagtcac aattggagct gggtatatag gtttgctaata 120
 gatgacagct gggatatttca gattgctgcc agatctccct aagatattct ggcgttaccc 180
 tgtttcatat atcaactatg gtgcatgggc attgcaggga gcatacaaga atgatatggc 240
 tgggcttgag tttgatggct tcatacctgg tgggtcaaaa ctgaaagggtg atgtcgtcct 300
 cacatccatg ctaggcatcc atctggatca ttcaaagtgg tgggacttag cagctgttat 360
 aatgattttg atagcttata gattactttt cttcatcatt ctcaagttca aggagagagt 420

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gtcaccattg tttcgaactc tttatacatg gcgaacattg cagcacatga aaaaacgacc 480
 ttcttttagg aaaacatcag ccttcccatc caagaggcac caagttctac attcactgtc 540
 ttctcaagag ggtctaaact ctccaattca c 571

<210> 32
 <211> 2611
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 32
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 aaaaggaatt ctgcaacacc atcaaattat tctagagttt gaagctatcc ctgaagagaa 180
 cagaaagaag ctcgctgatg gtgcattttt tgaagtattg aaggctagtc aggaagcgat 240
 cgtgttgctt ccatgggttg cacttgctgt tcgtccaagg cctgggtgtt gggagtacat 300
 tagagtgaat gttcacgccc ttgttggtga ggaacttact gttgctgagt atctccactt 360
 caaggaagag cttgttgatg gaagttcaaa tggaaacttt gttttggaat tggattttga 420
 gcccttcaac tcatcattcc cccgcccaac tctttcaaaa tccgttggtg atggtgtgga 480
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 acctcctgag acaccatgtg ccggattcga acaccggttc caggaaatcg gtttggaag 720
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 cctccgtata aagcaacaag gactcaacat caccctcga atcctcatta ttactagact 1020
 tcttcctgat gctgtcggaa caacatgcgg tcaacgactt gagaaagtat acggaacaga 1080
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 ctcaaagag ttgcaaggca agccagatct gatcatcgga aactacagt atggcaatat 1260
 cgtgcctcc ttgctcgcac ataaattggg tgtcacacag tgcaccatcg cccatgcttt 1320

33/54

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ggagaagaca aaatatcctg attcagatat ctactggaag aagcttgaag acaaatacca 1380
tttctcttgc caatttacag ctgatctttt tgcaatgaac catacagatt tcatcatcac 1440
cagtactttc caggaaattg caggaagcaa ggacactgtt ggtcaatacg agagccacac 1500
tgctttcact cttcctgggc totaccgtgt tgtacatggg atcgatgtgt ttgatcccaa 1560
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ttggagaata atattctgtt ttgtaatttc aattggagaa gctcttttgt atttcatctt 2520
gtcttttcct tttccttttt tcgcggcat tgtttgaaca tggggttggt cgcccgtaa 2580
ttccagttaa atatggtgac ttttgttttt c 2611

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<210> 33

<211> 2415

<212> DNA

<213> *Gossypium hirsutum*

<400> 33

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cttgcccaca ggaacgagat tttggccttg ctctcaagga tcgagggcaa aggaaaagga 120
attctgcaac accatcaaat tattctagag tttgaagcta tccctgaaga gaacagaaaag 180

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34/54

aagctcgctg atggtgcatt ttttgaagta ttgaaggcta gtcaggaagc gatcgtgttg	240
cctccatggg ttgcacttgc tgttcgtcca aggcctgggtg tttgggagta cattagagtg	300
aatgttcacg cccttgttgt tgaggaaactt actgttgctg agtatctcca cttcaaggaa	360
gagcttgttg atggaagttc aaatggaaac tttgttttgg aattggattt tgagcccttc	420
aactcatcat tccccgccc aactctttca aaatccgttg gtaatggtgt ggagttccta	480
aatcgtcacc tttcgcaaaa attgttccat gacaaggaga gcatgcaccc tttgctcgaa	540
ttcctcagag tccattgcca caagggcaag aacatgatgt tgaatgacag aattcagaac	600
ttgaatgctc ttcaacatgt tttgaggaaa gcagaggagt atcttggtac cctacctcct	660
gagacaccat gtgccggatt cgaacaccgg ttccaggaaa tcggtttgga aagaggttgg	720
ggtgacaccg cacaacgcgt gctcgagatg atccaactcc ttttgatct tcttgaggca	780
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ataaagcaac aaggactcaa catcaccct cgaatcctca ttattactag acttcttct	1020
gatgctgtcg gaacaacatg cgggtcaacga cttgagaaag tatacggaa agagtactcg	1080
gatattcttc gagtaccctt cagaacagaa aagggaattg ttcgtaaag gatctcaaga	1140
tttgaagtct ggccatactt ggaaacctac acagaggatg ttgctcatga aatctccaaa	1200
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tccttgctcg cacataaatt ggggtgtcaca cagtgcacca tcgcccattgc tttggagaag	1320
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cgtgtcaaga acttaaccgg actcgtcgag tggtagcgca agaacgcaaa gttgcgtgag	1800
ttggctaacc tcgtagttgt aggtggtgat aggcgaaagg aatctaaaga tttggaagag	1860
aaggccgaaa tgaagaaaat gtttgagctg atcgagaagt acaacttgaa cggccaattc	1920

35/54

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agatggatat catctcaaat gaacagaatc cgaaatggtg aactttaccg atacatttgc 1980
gacacgaaag gtgcctttgt acagcctgca ttgtatgaag cctttggatt gacagttgtg 2040
gaggcaatga cttgcggttt gccaacattc gcaacctgca acggtggacc agccgagatt 2100
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caaggaggct tgaaacgtat cgaggagaag tatacatgga agatttactc ggagagacta 2280
ttgaccctga ccggagtgtg tggattctgg aagcatgttt ccaaccttga acgcctgag 2340
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ccattggcag aggag 2415

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<210> 34
<211> 732
<212> DNA
<213> Gossypium hirsutum

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<400> 34
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gtgatgactt gcttaagctt tgcctcaagga aaagcagcgt cgccgtcgaa ggagtgttgt 180
aattcagtg cggggattaa agagaataaa cccaaatggt tgtgttatat tttgcaacaa 240
acacaaaactt ccgggtgctca aaatctcaaa agcttaggtg ttcaagaaga taagctgttt 300
cagttaccgt cggcttgctca attgaagaac gctagcgtca gtgattgcc aaagcttctt 360
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acaccagta cttcaacaac caccgcaacg ccgtottccg cggccgataa aaccgatagc 480
aaatccagtg gaatcaagct tgggtcccac ttcgtcggtt ccacggcggc gctactgggt 540
gctacagcgg ccgtgttttt ccttgtattc ccagctggat ttgcttcaat agtttagggg 600
ttttgcatgg gatctcgaga tttggagggt tatttattgt tgaagtccat ttgtttttaa 660
acgggtctcag aaaaaaaaaatg gactgagttg acaattatga tgatttttcg tttatttttc 720
ctttttctta tt 732

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<210> 35
<211> 585
<212> DNA
<213> Gossypium hirsutum

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36/54

<400> 35
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 gcggctgacg agagtgggtt agogaatgag tgcagcaaag atttccagag cgtgatgact 120
 tgcttaagct ttgctcaagg aaaagcagcg tcgccgtcga aggagtgttg taattcagtg 180
 gcgggggatta aagagaataa acccaaagt ttgtgttata ttttgcaaca aacacaaaact 240
 tccggtgctc aaaatctcaa aagcttaggt gttcaagaag ataagctgtt tcagttaccg 300
 tcggcttgctc aattgaagaa cgctagcgtc agtgattgcc caaagcttct tgggttatct 360
 ccgagctcac cagacgccgc catcttcacc aactcctcct ctaaagcaac gacaccagct 420
 acttcaacaa ccaccgcaac gccgtcttcc gcggccgata aaaccgatag caaatccagt 480
 ggaatcaagc ttgggtccca ctctgtcggg tcacagcgcg cgctactggg tgctacagcg 540
 gccgtgtttt tccttgtatt ccagctgga tttgcttcaa tagtt 585

<210> 36
 <211> 610
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 36
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 tttccatgat tctcatggtg tgcatgacga tgatgagtgc acccaaggca gccaaagccg 120
 ccatcacgtg cagcgacgtg gtgaaccact tgatcccggtg cttgtcctac gtacaaaacg 180
 gcggtacacc cgctgctgca tgctgcagtg gggtaaaagc actctacggc gaggttcaga 240
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 acaccagcaa taacctcaat ctgcgacgg gcctacctgc taaatgtggg ctccaactcc 360
 cttacagcat cagcccctcc actgactgca acaagggtgca gtgaggttga tgatgatgat 420
 atggaaggag tggaagaagg ttccagctca gctagataaa gtagctagct aaggttaaat 480
 aagctgtgtt ggtgtgttgt tttttagaaa attccatata taatcgggga aagaaaaaaa 540
 aatagaaaaat gtactttgta actgtatttc gtatgtgata tatataatgt atcgtaatct 600
 ttaatttttt 610

<210> 37
 <211> 369
 <212> DNA
 <213> *Gossypium hirsutum*

37/54

<400> 37
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 atgagtgcac ccaaggcagc caaagccgcc atcacgtgca gcgacgtggt gaaccacttg 120
 atcccgtgct tgtcctacgt acaaaacggc ggtacacccg ctgctgcatg ctgcagtggg 180
 gtaaaagcac tctacggcga gggttcagacc tccccggacc gccaaaacgt gtgcaagtgc 240
 atcaaatcgg cggtgaacgg aattccgtac accagcaata acctcaatct cgcagccggc 300
 ctacctgcta aatgtggtct ccaactccct tacagcatca gcccctccac tgactgcaac 360
 aaggtgcag 369

<210> 38
 <211> 886
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 38
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 aactactgga atacacagtt gaagaaaagg ttgacgacga tagggatcga ccctgcaact 120
 cacaggccta aaaccgatac cctcggttct actcccaagg atgccgctaa ccttagccac 180
 atggctcaat gggagagtgc tcgggttagaa gctgaagcta gattggtgag agagtgcgaaa 240
 cgagtttcaa acccttcgca aaaccaatth aggttcacgt cttcatcggc tcctccactg 300
 gtaagcaaaa ttgatgttg tttgggtcat gctactaaac cgcaatgcct cgatgtactc 360
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 ccaacatcga cgtcgagctt cacggaaaac acgttaccaa tctcatctgt cgggttcatt 480
 gacagctttg tggggaactc aaataacagc tggtgcggaa ataattggga atgtgtggag 540
 aaatcgagcc aagttgctga attacaggaa agattggata actcaatggg gttgcatgac 600
 atattggatc tctcctcaga agatgtatgg tttcaaggct catacagggc ggaaaatatg 660
 atggaagggg attcggacac gttaatggtt tgtgattctg gggatcatcc gaagagtttg 720
 tcaatggagc ctagacaaaa ctttaatggtt ggaacaagta atgctagtag tttcgaagaa 780
 aacaagaatt actggaacaa catccttaat tttgcgaatg cttccccttc tggttcttct 840
 gtcttttgag attaattggt aagatttgaa ataaataaaa atatat 886

<210> 39
 <211> 1353
 <212> DNA
 <213> *Gossypium hirsutum*

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<400> 39
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aaggttctct cccaattct tgcttgcta gcgcttgctg tggaggcaag tcatgctgct      120
ctctcaccg agcaatattg gagctataag ctgccaaata ctccaatgcc aaaggctgtc      180
aaagaaattc tacatccaga actgatggag gagaaaagta cctctgtaaa tgtaggaggt      240
ggtggtgtaa acgtcaacac aggaaaaggg aagccagcgg gtggcactca tgtgaacggt      300
gggcgcaaag gagttggagt gaacacggga aagccagggg gtggcactca tgtgaatggt      360
ggaggcaaag gagttggggt gaacactgga aagccaggag gtggcaccca tgtgaacggt      420
ggaggcaaag gtggaggagt atctgtacac accggacaca agggaaagcc agtaaatggt      480
aatgtgagtc cgtttcttta ccaatatgca gccagtgaat ctcaaatacca tgacgatccg      540
aatgtggctc ttttctttct ggaaaaggat ttacaccccg ggcaacaatg agcctgcatt      600
tcacttgaat atacagagaa atccctttct taccttatca aactgccaaa aaaatccggt      660
ttcatctacg aagttgccag aattttcaca agttttcagt gaacctggat cagtgaaggc      720
agagatgatg aagaacccat taaggagtgc gaacagccag cgattgaagg agaggaaaaa      780
tattgtgcac cctcactgga gtcaatgatt gactacagca tttccaaact agggaaagtt      840
gatcaggcag tctcaacaga agtggaaaaa caaaccccaa cgcacaagta tacaataaca      900
gctggagtgc agaagatgac aaatgacaaa gctgtagtgt gccacaagca gaattatgca      960
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aaccctaaagc atttggcttt tcaagtcta aaagttgagc caggaaccat tcctgtctgc     1140
catttccttc ctgggatca cattgtttgg gtccccaagt aaaagtcctg aagagtagac     1200
tcatacacta tagtttcata atagggtgca ttaaacagc ttaaagcaat ctccagtttg     1260
ttctataata atataccac gagtttagtc atgtaaaatc tatccatgaa tcatgttctt     1320
agtaatggat aaaatgatag tactttctgt atc                                     1353

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<210> 40
<211> 1122
<212> DNA
<213> Gossypium hirsutum

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<400> 40
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gctctctcac ccgagcaata ttggagctat aagctgccaa atactccaat gccaaaggct 120
gtcaaagaaa ttctacatcc agaactgatg gaggagaaaa gtacctctgt aaatgtagga 180
ggtggtggtg taaacgtcaa cacaggaaaa gggaagccag cgggtggcac tcatgtgaac 240
gttgggcgca aaggagttgg agtgaacacg ggaaagccag ggggtggcac tcatgtgaat 300
gttggaggca aaggagttgg ggtgaacact ggaaagccag gaggtggcac ccatgtgaac 360
gttggaggca aagggtggagg agtatctgta cacaccggac acaagggaaa gccagtaaata 420
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tggaacccaa agcatttggc ttttcaagtc ctaaaagttg agccaggaac cattcctgtc 1080
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<210> 41
<211> 1373
<212> DNA
<213> Gossypium hirsutum

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<220>
<221> misc_feature
<222> (895)..(895)
<223> n = unknown

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<220>
<221> misc_feature
<222> (911)..(911)
<223> n = unknown

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<220>
<221> misc_feature
<222> (1270)..(1270)

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<223> n = unknown

<220>

<221> misc_feature

<222> (1336)..(1336)

<223> n = unknown

<400> 41

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ttgaaagcca tggcagagac gacgaagtgg agagttaga tgacaagtac gttagcgctt	180
actttcatca aacttttgat tctgcaaato actttgatgg aggtgatgaa gtgaagaatt	240
tagaagacaa atattcaacg gottacttcc acaaatcgtt agattctgga aaccatggca	300
gagatgacaa agcaaagata ttggaagaca agtatgctac tgcgtacttc cacaagactt	360
ctgtttttga aaaccatggt gaaggtgaca aattaaagag tttggaagat aaatattccg	420
cggcttactt tcacaacaca caatcttcca aaatgatgaa ggatcacacac atggaacatc	480
accaccatta ccataaccat gttgaaagtg cagagatagg cttgttcacc attgatgaac	540
tacatacctt taacgtaggg aagaaattac ccactttttt cccaataaaa aaccactctc	600
tttaccctcc tttattgctt aaacaaattg ctgacaccat ccctttttca tctttccaag	660
tttctaatat tctacgattc ttctcagttt ctccggactc ccccaaaggc aaaagctggt	720
caagatacct tcgcaaaatg cgaactcgga gcagcgcaag ggggagaccc aaaatctggg	780
ctacctcttt aaaatcttta catgggtttc taagcatgca tttgggcccc atgttgatgt	840
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ttagaatccc ntgaagagat tgaatctcca aagaaagtag catgtcatcc aatgccatat	960
ctttatgcag tttatttctg tcaactttgat gccactgaga ttaaagcttt caaactccgt	1020
ttagttggtg atgttacggg agataagggtg gatgctgttg ttctttgcca tatggatact	1080
tcaggttgga gctctgatca tgctgctttt cgcattgctt gtattaagca aggaaacact	1140
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gcgggtgcca tataagtgtt gaactgttcg atgtagcact catttgccac tacgtatcga	1260
gaccttatcn caatataagt atttaagagc tagtcttatg ttacttaggt ttcattggtg	1320
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41/54

<210> 42
 <211> 1212
 <212> DNA
 <213> *Gossypium hirsutum*

<220>
 <221> misc_feature
 <222> (895)..(895)
 <223> n = unknown

<220>
 <221> misc_feature
 <222> (911)..(911)
 <223> n = unknown

<400> 42
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 ttgaaagcca tggcagagac gacgaagtgg agagttaga tgacaagtac gtttagcgctt 180
 actttcatca aacttttgat tctgcaaatc actttgatgg aggtgatgaa gtgaagaatt 240
 tagaagacaa atattcaacg gcttacttcc acaaatcggt agattctgga aaccatggca 300
 gagatgacaa agcaaagata ttggaagaca agtatgtctac tgcgtacttc cacaagactt 360
 ctgtttttga aaaccatggt gaagggtgaca aattaaagag tttggaagat aaatattccg 420
 cggcttactt tcacaacaca caatcttcca aaatgatgaa ggatcacaac atggaacatc 480
 accaccatta ccataacat gttgaaagtg cagagatagg cttgttcacc attgatgaac 540
 tacatacctt taacgtaggg aagaaattac ccattctttt cccaataaaa aaccactctc 600
 tttaccctcc tttattgcct aaacaaattg ctgacacat ccctttttca tctttccaag 660
 tttctaatat tctacgattc ttctcagttt ctccggactc ccccaaaggc aaaagctggt 720
 caagatacct tcgcaaaatg cgaactcgga gcagcgcaag ggggagaccc aaaatctggg 780
 ctacctcttt aaaatcttta catgggtttc taagcatgca tttgggcccc atgttgatgt 840
 caagttcata agccaaggca tccccccata ccaacccac tctttcaaag ttacncagtt 900
 ttagaatccc ntgaagagat tgaatctcca aagaaagtag catgtcatcc aatgccatat 960
 ctttatgcag tttatttctg tcactttgat gccactgaga ttaaagcttt caaactccgt 1020
 ttagttgggtg atgttacggg agataagggtg gatgctgttg ttctttgcca tatggatact 1080
 tcaggttgga gctctgatca tgtcgtttt cgcagtgttg gtattaagca aggaaacact 1140
 gtttgccatg tattttctca aggtaatctt gtttggatta atcagccatc ggatatcgct 1200

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gccggtgcca ta 1212

<210> 43
 <211> 1024
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 43
 gtataacaga ggcagaatcg accggcataa aaataaaaaat gggaggctgg gcaatcgcag 60
 tgcattggtgg tgctggtggt caccctaatc tccctagtga aaggcaagag gaagctgtgc 120
 tactcctcaa tcgttgccctt gatattggaa tctgtgcttt ttgttctaac ctttcgggca 180
 ttgactgaca tgaacttgta ttgagggaat ttgaacggat cctttgctta attccgggag 240
 tggatcggca cttacggata aagggaacga ggaaatggaa acttgcttta tggatggacc 300
 gaacagacca tgcggtgctg tttcgggtaa acgacatgga agaatccgat atctcttgct 360
 cgacttgaaa tggataaaac accacattca tctttgggtt ttgccggcgc cgattatattt 420
 gcgaggaaac aggggtgtgga gttggtggac aatgaatatt tcattacaga atacaatgtg 480
 gggatgctta agttaacaaa agaagcacac tcaatcctgt actattaccg taccctaacc 540
 ctcaccacct gcggaggcag cgcagacatg gaaaatcgat tacgaatgaa ctggttacca 600
 atctttctct acatcatata aacagtgggt cgagtcgcac catacaaaca atgtcattgc 660
 tctgccgcta cttgcaccgg tggattaatg aacattatga ccggaagat tggatgactcg 720
 ccgctgattg gttcagagac ttatgcttgt gacttattgg ctgtttatgt accggtgaat 780
 gtgaagccat tatgctaagc actttggcta cggaagtagc agcgtgatgg aatataaatg 840
 gttgaatctt cctgaagctg tggatatgtg attaaactag actatgtgaa ggcaaagctg 900
 gtctattgcc tgcctatat gggaagtgtg tggggctgaa tactactggt atgatatggt 960
 tggctactga agatggatta tggaagtgtg tgtctgcaaa ttgatgttag cttagatgct 1020
 ggtc 1024

<210> 44
 <211> 795
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 44
 gtataacaga ggcagaatcg accggcataa aaataaaaaat gggaggctgg gcaatcgcag 60
 tgcattggtgg tgctggtggt caccctaatc tccctagtga aaggcaagag gaagctgtgc 120

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tactcctcaa tcgttgcoctt gatattggaa tctgtgcttt ttgttctaac ctttccggca 180
 ttgactgaca tgaacttgta ttgagggaat ttgaacggat cctttgctta attccgggcg 240
 tggatcggca cttacggata aaggacgga ggaaatggaa acttgcttta tggatggacc 300
 gaacagacca tgcggtgctg tttcgggtaa acgacatgga agaatccgat atctcttgct 360
 cgacttgaaa tggataaaac accacattca tctttgggtt ttgccggcgc cgattatttt 420
 gcgaggaaac aggggtgtgga gttggtggac aatgaatatt tcattacaga atacaatgtg 480
 gggatgctta agttaacaaa agaagcacac tcaatcctgt actattaccg tatcctaacc 540
 ctcaccacct gcggaggcag cgcagacatg gaaaatcgat tacgaatgaa ctggttacca 600
 atctttctct acatcatata aacagtgggt cgagtcgcac catacaaaca atgtcattgc 660
 tctgccgcta cttgcaccgg tggattaatg aacattatga ccggaaagat tggtgactcg 720
 ccgctgattg gttcagagac ttatgcttgt gacttattgg ctgtttatgt accggtgaat 780
 gtgaagccat tatgc 795

<210> 45
 <211> 989
 <212> DNA
 <213> *Gossypium hirsutum*

<400> 45
 accatacact ccaagacccc aaccattaac cgcacaagaa gaatcggatc ttgaattggc 60
 acaccaaaga ctgttaaaac tttgccaaaa tgcgcgcagt acaacgttcc ttttaaccatt 120
 gatgccgagg acacgtcgat tcaaccgcc atcgattact tcacgtactc tcggccatca 180
 tgtatacaaa gatgataacc ccattgtcta cggcacgatg caagcttact tgaaagacgc 240
 gagggagcgg ctgtttaaca cggcgaggac ggcggagaag ctggggattc atatgggggtt 300
 taagctggtg agaggcgctt acatgtcgag cgaaaccaag ttggcttctt ccttaggggtt 360
 cgattcgccg gttcacaaca ccattcaaga caccatgct tgtttcaatg attgtgcttc 420
 gtttatgatt gagaagattg ctgatgggta tggcggactc gttctcgcaa ctcataatct 480
 tgagtcaggg aaattggcag catcgaaagc acgaaattta ggaattgaga aggggaatca 540
 aaagcttgaa tttgcacagt tatatggaat gtcggaagcg ctgtcgattg gattgagaaa 600
 cgcagggttt caagttagca aatacttacc ctatggacca gttgatatgg taatgccata 660
 ccttttaagg agagccgaag aaaatagagg actcttatca acttcaagcc ttgatagaac 720
 tctcatgggg aaggagttga agagaagatt aaagagcctg caatttgcca agccagagat 780

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```

ggcagcttca gcagcaggta gcatgaagat agaaatagga acgccataaa tgagggttttg      840
attcatagat ggtttgggat gggcaatttt tgccaacaat gtagaattat gaaaaaaaaa      900
taacaatcat tgtaacgttt gggcatttgt cccatgtcaa ttattatttg cattagaaat      960
tgaatttttt tctttatttt tgaaaaaaaaa      989

```

```

<210> 46
<211> 410
<212> DNA
<213> Gossypium arboreum

```

```

<400> 46
atcaaggctg ccgtaatgtg caataatgct tgaccaaaga tgatataaaa aaagggaaaa      60
gagaagaaaa ggtgttcgtc cgaaaacaaa tttaacgatt aaagaagtca agagcgcacc      120
tttcaattca tcctttgcgg tcatggtggt ttgtaagaag gcaaaatcac caagcctgca      180
aggatagtag gttcgggaat tgactttgcc aaagagattt taatattaga tatgttgga      240
gaactcccca ttttgtgtag gctaagagtt caatgtagga gtggacttta tactagtcta      300
atctcttttc agtttcatgt gttattgttg aagcattagt ttttttgac ttattcctcc      360
attaacaaac atttgtaat ttctgcttaa aaaaaaaaaa aaaaaaaaaa      410

```

```

<210> 47
<211> 665
<212> DNA
<213> Gossypium arboreum

```

```

<220>
<221> misc_feature
<222> (19)..(19)
<223> n = unknown

```

```

<220>
<221> misc_feature
<222> (112)..(112)
<223> n = unknown

```

```

<400> 47
attacaccct tttcatttnt agatcacatc ataagaagac tgggggttgaa aaaccccacc      60
tcccatggga gtttcttaag cgatgtgagc gtctcctcct ctgtgtaatc tntgattcaa      120
gatccatcca ttatcttccc tctgtattgg ctactgcaac catgatgcac gtcataagacc      180
aagttgagct tttcaatccc attgactacc aaaatcagct gctgagtgtt cttaaaatta      240
gcaaggaaaa agtaaacgat tgttacaagc tcatccttga tgtatcaaca agaccccagg      300

```

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```

cccaaggcaa tggtggtgca tgtaagagga aggtggagga gagggttcct agcagcccta 360
gtggagtgat tgatgctgca tttggcagtg atagctcgaa cgattcgtgg ggcacgggtgt 420
ccttatcgcc tgagcagcag ccacctttta agaagagcag agcccaagag caagtaatgc 480
gtttgccatc actcaaccga gtctttgtag acattgttgg cagcccttct taattatata 540
tcccttctct ctctccctcg ctctctccat ctctttcttt gtcccaaaaa gatctatatt 600
tattatgott atgttcactt ttggttcaag gaatcaaagt ttaagttaaa aaaaaaaaaa 660
aaaaa 665

```

```

<210> 48
<211> 626
<212> DNA
<213> Gossypium hirsutum

```

```

<220>
<221> misc_feature
<222> (581)..(581)
<223> n = unknown

```

```

<400> 48
cttgtttcta tctgtatata accaaggga ttagacaccc gttcagttga aagagttcag 60
ctgaacaccc caaagatggc caaccacacc gttacctttc tccctaaact atccattgaa 120
gctattcaga cagtgactcc gatgaggata actgaaccac gacagactcg acaagtattg 180
gcagggggagc ttgtaggacc cgggattttc caaagggtgtt tgaacgtggc ccagtactac 240
atgaaggaga aagaagaaga ctctggttgg ttactggctg ggtggatcaa ggaaacactt 300
gggagagctt tacatgagca accaatgatt tctggtcgtc ttcggaaagg ggaacgaaac 360
gatggagaat tggagattgt ttccaatgac tgcggcatta gactcattga ggcaaggatt 420
cagatgaatc tgtcggattt tcttgatttg aaacaaaggg aagatgctga agctcagctt 480
gttttctgga aagatattga tgagcaaaac ccacagttct cccactctt ttatgttcag 540
gttactaatt tccagtgtgg tggatattca attgggatta nctgcagtat tcttctggca 600
gatcttttgt taatgaaaga attcct 626

```

```

<210> 49
<211> 644
<212> DNA
<213> Gossypium arboreum

```

```

<220>

```

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<221> misc_feature
 <222> (585)..(585)
 <223> n = unknown

<400> 49
 actgagttaa gagtttcaat tcttctactt attatagtta aatatcatat atggccaagt 60
 acttgaatgt tgtgcttggt cttgctctag tagtggttca agctactgca aggaatgtgc 120
 ctagcgatgc tgctgggtctc aatgaccaaa agaacctcct cacatacggg ggcattggcg 180
 gctactctgg catgggttca aatggcatgc caatgggtgg agttgggagt gttggtggta 240
 tgactggcct tgggtggtaca ggtgggatgg gcgccatggg aggtggtggg tatggagggtg 300
 ggccctggcgc tgggtggtgga aatgaaggtg gtgttggcat tggcaatgcg cctgggtgtcg 360
 tccactttcc ttgaactttg ctggatgggt aaaatttttaa agcaactagt ttcttgaact 420
 ttgctggagg ggtttaaatt ttaaagcaac tagtctaact tacgttaaag agtaatatta 480
 aagttgctct agagtgtgaa atgttttggg ttatgtgata ggtccatctt tatttttttt 540
 atgtcgagtt ttcttttggt ttgtaatcct tcattgtcgt ggttntgtag ccgacttaaa 600
 gtaaataaat tgattttgac aagttaaaaa aaaaaaaaaa acaa 644

<210> 50
 <211> 677
 <212> DNA
 <213> *Gossypium arboreum*

<400> 50
 gacactcaaa tataagtagc aaactaacct atgggttatt tggctgattt tgaagggttc 60
 atgggtgtatt ttggtgctg tctgttgaga atccgagttg ttgtcccgtg gtattagott 120
 ctctgtcttg ctggttgca ttgggcagtt gtgaggctta taatcaagt attcaaggaa 180
 accgttagct tcattttact tggagaagac aaagaagcta ttgttgtgct ggacttgttc 240
 ttgctttttc tctttgtatg gtgtggttta tggtttgat tatgagtttt atatgaatag 300
 aactttgaat ttggtgagaa aattaagaat gagcttggga ggagcagaag tgttgatggc 360
 aatagcaggg ttgtgggcag tggttttgag gccattgatg ataaggtatg ccgtagagat 420
 gagtcaaattg attggaattt ccgttaggag agttttcagt aatcctcttt ccccttccgt 480
 atcgtttttt tattggtact gatatagaaa ttctatgaaa tgagcacaat atgagacacc 540
 attttttgct agccaagaag ttagatgagt ggtagacttt ggtttaagct tatcataatt 600
 gaaattgtta gactgtaacc cttttgtctc ctttctctaa tttcaaattc aaattcccat 660

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caataaaaaa aaaaaaa

677

<210> 51
 <211> 692
 <212> DNA
 <213> *Gossypium arboreum*

<400> 51
 ccctacattt ttacgctctg gcacagaaga agaaagccct acctatataa tattacatgc 60
 aaatataatg gtatcattag acgttatgac atcgtataat gtaggaggca tctgctacta 120
 acatttggca gatgaaatta ttacgaaga acaatgggat attttctgta tttgtttatc 180
 atatctgggtt acttcaaagc actgggttgca acaacagaaa tcaggtttct gctcttcatt 240
 gccattgcta gggaggacca taaacaaacc attcttggga gatgggaaac cctcttgcca 300
 ttaatgccag aacagtttgc agatattaga agcacttgaa aaataaagct gatacagata 360
 attccatatg taattctact ataatctott tctctttgtt tctgtaatca aattccagta 420
 agagcattac tatagtactc atgatttggt gattcttcta gtgaattgga gagtttagac 480
 cctcttgaga agacagttaa tgtagaactt ggtgcctctt ggatgggaag gctgatgttt 540
 tctaaaaga aggtcgtttt ttcatgtgct gcaatgttcg ccatgtataa agagttcgaa 600
 acaatgggtga gactctctcc ttgaacttga gaatgatgaa gaaaagtaat ctgtaagcta 660
 tcaaaatcat tataacagct gctaagtccc ac 692

<210> 52
 <211> 788
 <212> DNA
 <213> *Gossypium arboreum*

<400> 52
 aagatgatga aaaggggttt tattgttttg gccttgatgg tggttttcgc cgcgacggtg 60
 gttacggggg ctgacgagag tgggttagcg aatgagtgca gcaaagattt ccagagcgtg 120
 atgacttgct taagctttgc tcaaggaaaa gcagcgtcgc cgtcgaagga gtgttgtaat 180
 tcagtggcgg ggattaaaga gaataaacc aaatgtttgt gttatatattt gcaacaaaca 240
 caaacttccg gtgctcaaaa tctcaaaagc ttaggtgttc aagaagataa gctgtttcag 300
 ttaccgtcgg cttgtcaatt gaagaacgct agcgtcagtg attgcccaa gcttcttggg 360
 ttatctccga gctcaccaga cgccgccatc ttcaccaact cctcctctaa agcaacgaca 420
 cccagtactt caacaaccac cgcaacgccc tcttcgcggg ccgataaaac cgatagcaaa 480
 tccagtggaa tcaagcttgg tccccacttc gtcggttcca cggcggcgct actggttgct 540

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```

acagcggcgcg tgtttttcct tgtattccca gctggatttg cttcaatagt ttaggggttc      600
tgcacgggat  ttccgagattt ggaggtttat ttattgttga agtccatttg tttttaaacg      660
gtctcagaaa  aaaaatggac tgagttgaca attatgatga tttttcgctt attcttgctt      720
tttcttattt  gattaaacgt ccctttgaaa taaaacttag tttattttcc cagctttccc      780
cctgggaa                                         788

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```

<210> 53
<211> 634
<212> DNA
<213> Gossypium arboreum

```

```

<400> 53
caaacactag tagaaggttt agttttacaa acatggctag ttccggtgtc ctttaagttgg      60
tttccatgat tctcatcgtg tgcacgacgg tgatgagtgc acccaaggca gccaaagccg      120
ccatcacgtg cagcgacgtg gtgaaccact tgatcccggtg cttgtcctac gtacaaaacg      180
gcggtacacc cgctgctgca tgctgcagtg gggtaaaagc actctacggc gaggctcaga      240
cctccccgga ccgccaaaac gtgtgcaagt gcatcaaadc ggcggtgaac ggaattccgt      300
acaccagcaa taacctcaat ctgcgagccg gcctacctgc taaatgtggt ctccaactcc      360
cttacagcat cagccctcc actgactgca acaaggtgca gtgaggttga tgatgatgat      420
atggaagaag gagtggaaga aggttcagc tcagctagat aaagtagcta gctaaggtta      480
aataagctgt gttggtgtgt tgttttttag aaaattccat atataatcgg ggaaagaaaa      540
aaaaaataga aaatgtactt tgtaactgta tttcgtatgt gatatatata atgtatcgta      600
atctttaatt ttttaaaaaa aaaaaaaaaa aaaa                                         634

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```

<210> 54
<211> 884
<212> DNA
<213> Gossypium arboreum

```

```

<400> 54
cagtgaact caaatccatg aagacccgaa tgtggctctt ttctttcttg aaaaggatat      60
gcaccccggg gcaacaatga gcctacattt cactgaaaat acagagaaat cagctttctt      120
accttatcaa actgccccaa aaataccgtt ttcactctgac aagttgccag aaattttcaa      180
caagttttca gtgaaacctg gatcactgaa ggcagagatg atgaagaaca caattaagga      240
gtgcgaacag ccagcgattg aaggagagga aaaatattgt gcaacctcac tggagtcaat      300

```


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gattgactat agcattttcca aactagggaa agttgatcag gcagtctcaa cagaagtgga 360
 aaaacaaacc ccaacgcagc agtatacaat aacagctgga gtgcagaaga tgacaaatgg 420
 caaagctgta gtgtgccaca agcagaatta tgcatatgct gtctttctatt gtcataaatc 480
 agaaacaaca agggcttaca tggttccttt agagggtgct gacggaacaa aagccaaagc 540
 agtagcagtc tgccacacag atacatcagc atggaaccca aagcatttgg cttttcaagt 600
 cctaaaagt tt gagccaggaa ccattcctgt ctgccatttc cttcctcggg atcacattgt 660
 ttgggtccct aagtaaaagt cctgaagagt agattcatac actatagttt cttcacagtgt 720
 tgcattaaaa cagcttaaag caatatccag tttgttctat aataatatac ccacaagttt 780
 agtcatgtaa aatctatcca tgaatcatgt tcttagtaat ggataaaatg atattacttt 840
 ctgtatcaca agggtttggg gataaatgta ttagtatttt aagt 884

<210> 55
 <211> 690
 <212> DNA
 <213> *Gossypium arboreum*

<400> 55
 ggagtgctct cagaatcaaa ggaaatgggt tttcaattca attttccagt tcttctatta 60
 tgtottatgt ttttaatgtg tggcagaggc aatgcagtaa gggatttgga agggaaacat 120
 gattttgaaa gccatggcag agacgacgaa gtggagagtt tagatgacaa gtacgttagc 180
 gcttactttc atcaaacttt tgattctgca aatcactttg atggagggtga tgaagtgaag 240
 aatttagaag acaaatatc aacggcttac ttccacaaat cgtttagattc tggaaaccat 300
 ggaagagatg acaaagcaaa gatattggaa gacaagtatg ctactgcgta cttccacaag 360
 acttctgttt ttgaaaacca tgggtgaagg gacaaattaa agagtttgga agataaatat 420
 tccgcggtt actttcacia cacacaatct tccaaaatga tgaaggatca caacatggaa 480
 catcaccacc attaccataa ccatgttgaa agtgcagaga taggcttggt caccattgat 540
 gaactacata cctttaacgt agggaagaaa ttacccatct ttttcccaat aaaaaaccac 600
 tctctttacc ctcttttatt gcctaaacaa attgctgaca ccatcccttt ttcattctcc 660
 caagtttcta atattctacg attcttctca 690

<210> 56
 <211> 653
 <212> DNA
 <213> *Gossypium arboreum*

50/54

<400> 56
 ggacagagca gaatgaccgg cagagaataa aatgggagggc tgggcaatcg cagtgcattgg 60
 tgggtgctggg gtagacccaa atctccctaa tgaaaggcaa gaggaagcta aaagactcct 120
 cactcgttgc cttgatattg gaatctctgc tcttcgttct aacctctccg ccattgacgt 180
 cgttgaactt gtcgtgaggg aattggaaac ggatcctttg ttttaattccg ggcgtggatc 240
 agcacttacg gagaaaggga cgggtggaaat ggaagctagt attatggatg gaccgaagag 300
 acgatgcggg gctgttttcgg gtttaacgac ggtgaagaat ccgatatctc ttgctcgact 360
 tgttatggat aaaacaccac attcgtatctt ggggttttgcc ggcgccgaag agtttgcgag 420
 gaaacagggg gtggagttgg tggacaatga atatttcatt acagaagaca atgtggggat 480
 gcttaagtta gcaaaagaag caaactcaat cctgttcgat taccgtatcc caaccctcac 540
 cacctgcggg ggccggcgag ccattggaaa tcaattacaa atgaacgggt taccaatcag 600
 tctctacgcc ccagaaacag taggctgcgt ttagattgac aaacaggtca ttg 653

<210> 57
 <211> 612
 <212> DNA
 <213> *Gossypium arboreum*

<400> 57
 tttttttttt tttttcataa ttctacattg ttggcaaaaa ttgcccatcc caaaccatct 60
 atgaatcaaa acctactta tgggggtgcct atttctatct tcatgctacc tgctgctgta 120
 gctgccatct ctggcttcgc aaattgcagg ctctttaatc ttctcttcaa ctccctcccc 180
 atgagagggtc tatcaagggt tgaagttgat aagagtcctc tattttcttc ggctctcctt 240
 aaaagggtatg gcattacat atcaactggg ccattagggt agtatttgct aacttgaaac 300
 cctgcgtttc tcaatccaaa cgacagcgtc tcgacattc catataactg tgcaaatcca 360
 agcttttgat tccccttctc aattcctaaa tttcgtgctt tcgatgctgc caatttcctt 420
 gactcaagat tatgagttgc cagaatgagt ccgccatacc catcagcaat cttctcaatc 480
 ataaacgaag cacaatcatt gaaacaagca tgggtgtctt gaatgggtgt gtgaaccggc 540
 gaatogaacc ctaaggaaga agccaacttg gtttcgctcg acatgtaagc gcctctcacc 600
 agcttaaagc cc 612

<210> 58
 <211> 3
 <212> RNA
 <213> Artificial Sequence

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<220>
<223> Stem loop structure of dsRNA

<400> 58
ccc

3

<210> 59
<211> 4
<212> RNA
<213> Artificial Sequence

<220>
<223> Stem loop structure of dsRNA

<400> 59
uucg

4

<210> 60
<211> 5
<212> RNA
<213> Artificial Sequence

<220>
<223> Stem loop structure of dsRNA

<400> 60
ccacc

5

<210> 61
<211> 6
<212> RNA
<213> Artificial Sequence

<220>
<223> Stem loop structure of dsRNA

<400> 61
cuggag

6

<210> 62
<211> 6
<212> RNA
<213> Artificial Sequence

<220>
<223> Stem loop structure of dsRNA

<400> 62
aagcuu

6

<210> 63

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<211> 7
<212> RNA
<213> Artificial Sequence

<220>
<223> Stem loop structure of dsRNA

<400> 63
ccacacc

7

<210> 64
<211> 9
<212> RNA
<213> Artificial Sequence

<220>
<223> Stem loop structure of dsRNA

<400> 64
uucaagaga

9

<210> 65
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide primer

<400> 65
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53/54

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54/54

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